Carodnia

Carodnia is an extinct genus of <u>South American ungulate</u> known from the <u>Early Eocene</u> of <u>Brazil</u>, <u>Argentina</u>, and <u>Peru</u>. [3] *Carodnia* is placed in the order <u>Xenungulata</u> together with <u>Etayoa</u> and <u>Notoetayoa</u>. [4]

Carodnia is the largest mammal known from the <u>Eocene</u> of South America. It was heavily built and had large canines and cheek teeth with a crested pattern like the <u>uintatheres</u> to which it can be related.^[3] In life, it would have been a tapir-sized animal. It bore strong resemblances to <u>dinoceratans</u>, although without tusks or ossicones.

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Description

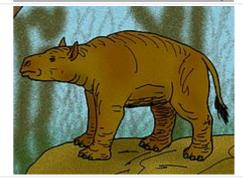
Simpson noted that *Carodnia* resembles the primitive <u>uintathere Probathyopsis</u>. Although Paula Couto also made the same favorable comparison, he placed *Carodnia* in the new order Xenungulata. <u>Gingerich 1985</u> concluded that *Probathyopsis* shares several dental characteristics with *Carodnia*, but that in the latter the anterior dentition of is more reduced, the second lower and upper premolars are enlarged and pointed, and that the first and second molars are more lophodont. Gingerich thought the differences could justify a separate family for *Carodnia* but proposed that it should be included in *Probathyopsis*, <u>Cifelli 1983</u> grouped *Carodnia* with <u>Pyrotheria</u> but later concluded that this was a mistake. [5]

Carodnia is characterized by bilophodont^[explain 1] first and second molars and more complex lophate^[explain 1] third molars, which suggests possible links to pyrotheres, uintatheres, and even arctocyonids. The bones of the foot are short and robust and the digits terminate in broad, flat, and unfissured hoof-like unguals, unlike any other known meridiungulate.^[6]

Carodnia $^{[1]}$

Temporal range: Early Eocene (Itaboraian-Casamayoran) ~53–48.6 Ma

Pre€ € OS D C P T J K PgN



Carodnia vieirai

Scientific classification

Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	†Xenungulata Paula Couto 1952
Family:	† Carodniidae Paula Couto 1952
Family: Genus:	,

■ †C. vieirai

Paula Couto 1952

† C. cabrerai

Simpson 1935

■ †C. feruglioi

Simpson 1935

• †C. inexpectans^[2]

Synonyms

C. feruglioi and *C. cabrerai*, from the <u>Riochican</u> in the <u>SALMA</u> <u>classification</u> of <u>Patagonia</u>,^[5] are known from only a few dental remains. *C. vieirai* (from the Itaboraian SALMA of Itaborai)^[5] is

Ctalecarodnia Simpson 1935

known from much more complete dental, cranial, and postcranial remains including an almost complete mandible, many vertebrae, and several partial leg bones.^[7]

When <u>Simpson 1935</u> first described *Carodnia* and *Ctalecarodnia*, the former was known only from a left lower molar which was lacking in the latter, making a comparison very difficult. <u>Paula Couto 1952</u>, based on considerably more complete remains, concluded that the molars and premolars of both are indistinguishable and therefore reduced *Ctalecarodnia* to a synonym. Paula Couto also noted that the dentition of *C. cabrerai* and *C. feruglioi* are similar except in size, and that *C. feruglioi* can be a juvenile *C. cabrerai*, but nevertheless left them as two distinct species. ^[8]

Distribution

Fossils of *Carodnia* have been found in:^[9]

- Peñas Coloradas Formation, Argentina
- Itaboraí Formation, Brazil
- Mogollón Formation, Peru^[2]

Notes

1. A loph is a crest on the crown of a tooth. A bilophodont tooth has two parallel lophs running transversally across the tooth.

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